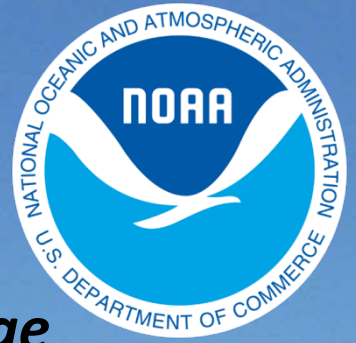


# BookletChart™

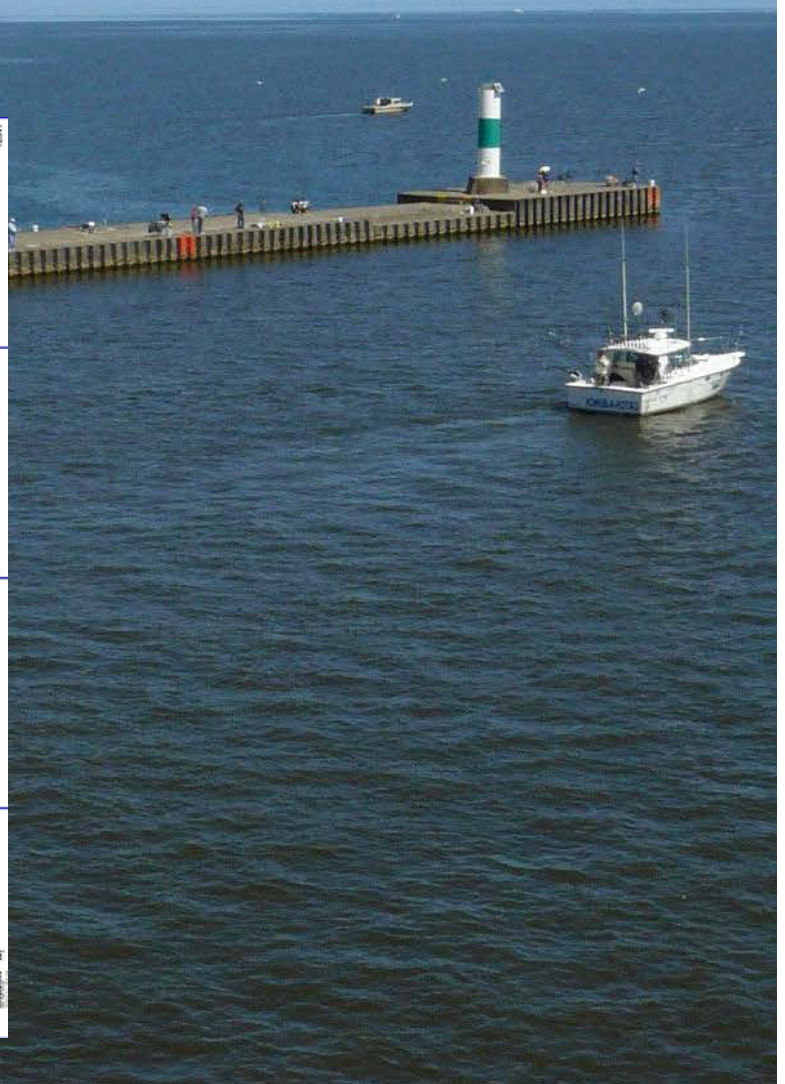
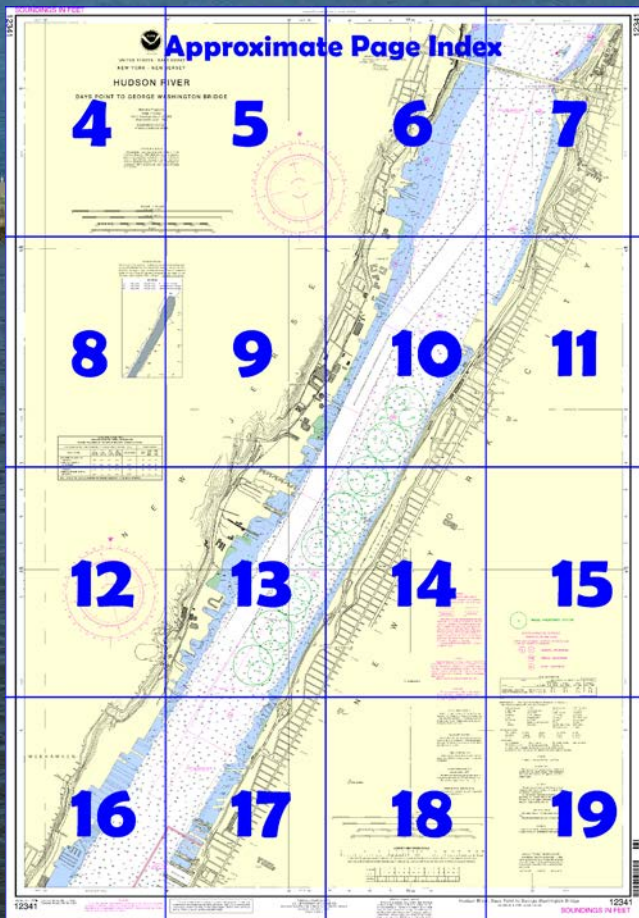


## ***Hudson River – Days Point to George Washington Bridge NOAA Chart 12341***

***A reduced-scale NOAA nautical chart for small boaters  
When possible, use the full-size NOAA chart for navigation.***



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the**  
**National Oceanic and Atmospheric Administration**  
**National Ocean Service**  
**Office of Coast Survey**  
[www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov)  
**888-990-NOAA**

### What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

### What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

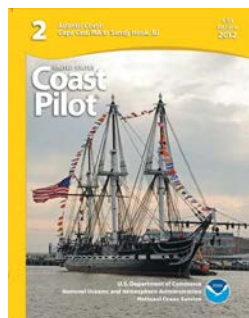
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

### Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=12341>



### (Selected Excerpts from Coast Pilot)

**Hudson River**, sometimes called **North River** in New York City, has its source in the Adirondack Mountains, about 275 miles along its course from a junction with East River at The Battery, N.Y., and flows in a general southerly direction into New York Upper Bay. Troy Lock and Dam, 134 miles above The Battery, permits vessels to pass from tidewater to the upper river and the New York State Canal System. The river

water is usually fresh as far south as Poughkeepsie, halfway from Troy Lock and Dam to The Battery.

New York City extends along the eastern bank of Hudson River for a distance of about 14 miles above The Battery. For about 5 miles northward from The Battery, the New York waterfront is an almost continuous line of wharves and piers, some of which can accommodate

the largest transatlantic liners.

On the opposite side of Hudson River from New York City are Jersey City, Hoboken, Weehawken, Guttenberg, Hudson Heights, Edgewater, and Fort Lee; this entire stretch of about 9 miles is lined with piers.

The limiting bridge clearance over the lower Hudson River is 139 feet, at the Tappan Zee Bridge (IS 87/287).

**Seasonal buoyage.**—The lighted buoys marking the Hudson River channel are replaced during the winter by smaller lighted ice buoys or unlighted buoys.

**Anchorage.**—General anchorages begin 5 miles above The Battery and extend upriver for about 10 miles. (See **110.1** and **110.155**, chapter 2, for limits and regulations.)

Vessels proceeding from New York to Albany occasionally anchor overnight in the vicinity of Kingston, 79 miles above The Battery and 47 miles below Albany, to await daylight hours for passing through the constricted part of the river.

A buoyed anchorage, 400 feet wide and 2,400 feet long, is on the east side of the channel just above Stuyvesant (42°23'22"N., 73°46'53"W.) about 15 miles below Albany.

**Dangers.**—Numerous fishtraps are planted each spring, usually from about mid-March to mid-May, during the seasonal run of shad to the spawning grounds in the upper Hudson. The charts show the fishtrap areas in the 30-mile stretch beginning about 5 miles above The Battery and extending upriver to Stony Point; Corps of Engineers permits are required for the placing of shad nets and poles in the charted areas. Outer limits of the nets usually are marked by flags during the day and by lights during the night. Caution is advised when navigating a fishtrap area because broken-off poles from previous traps may remain under the surface.

Navigation of the river is easy as far north as Kingston, but above Kingston it is more difficult because of the numerous steep-to shoals and middle grounds. In general tows are apt to follow the shoreline which is most favorable as regards wind and current; with a strong northwest wind, tows will follow the west shore regardless of the direction in which they are traveling.

**Tides.**—The tides in Hudson River are affected by freshets, winds, and droughts.

**Currents.**—The currents in Hudson River are influenced by the same variables that affect the tides. The times of slack water and the velocities and durations of flood and ebb are subject to extensive changes; the times of strengths are less likely to be affected. The currents usually set fair with the channels except in the vicinities of bends and wharves. Velocities of currents are 1.4 knots flood and 1.4 knots ebb northwest of The Battery, 1.6 and 2.2 knots at George Washington Bridge, 0.9 and 1.1 knots at Newburgh, 1.1 and 1.2 knots at Poughkeepsie, 1.3 and 1.6 knots at Kingston, and 0.3 knot flood and 0.8 knot ebb at Albany. Near Troy Lock and Dam, the current does not flood and the ebb has a velocity of 0.7 knot. These values are for the summer when the freshwater discharge is at a minimum.

**Freshets.**—During March, April, and May, freshets have reached heights above normal high water of as much as 18 feet at Albany and 25 feet at Troy Lock and Dam. At the time of the larger freshets the tide may be completely masked.

During the smaller freshets, the flood current disappears and the ebb current has a velocity of about 1.5 knots. The larger freshets produce an ebb current that varies from 1.5 to nearly 5 knots depending on the size of the freshet and the stage of the tide.

### U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Boston

Commander

1st CG District

Boston, MA

(617) 223-8555

**2**



# Table of Selected Chart Notes

Corrected through NM May 14/11  
Corrected through LNM May 3/11

## HEIGHTS

Heights in feet above Mean High Water.

Mercator Projection  
Scale 1:10,000

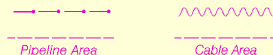
North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FEET  
AT MEAN LOWER LOW WATER

## CAUTION

### SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

## AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers and U.S. Coast Guard.

## AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

## RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

## POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

## CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

## NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

New York, NY KWO-35 162.550 MHz

## CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

## FISH TRAP AREAS

Boundary lines of fish trap areas are shown thus: — — — — —

Submerged piling may exist in these areas.

## GEORGE WASHINGTON BRIDGE

The bridge cables are marked with lights and day marks.

VERT CL  
195 FT EAST END  
213 FT CENTER  
210 FT WEST END

## HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83) which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.365" northward and 1.505" eastward to agree with this chart.

## NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 2. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in New York, NY.

Refer to charted regulation section numbers.

## WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

## NOTE Z

### NO-DISCHARGE ZONE, 40 CFR 140

The State of New York waters in the Hudson River from the Battery in Manhattan to the Federal Dam in Troy are designated a No-Discharge Zone (NDZ).

Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: [http://www.epa.gov/owow/oceans/regulatory/vessel\\_sewage/](http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/).

## ANCHORAGE AREAS

110.155 (see note A)

Limits and assigned numbers of anchorage areas are shown in magenta.



## SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

## TIDAL INFORMATION

PLACE	(LAT/LONG)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
Weehawken, Union City, Hudson River	(40°46'N/74°01'W)	feet 4.9	feet 4.6	feet 0.2

Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>. (Apr 2011)

## ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	Is isophase	OBSC obscured	s seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WhIS whistle
		R Bn radiobeacon	Y yellow

### Bottom characteristics:

Bds boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

### Miscellaneous:

AUTH authorized	Obstr obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	
① Wreck, rock, obstruction, or shoal swept clear to the depth indicated.			
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.			

12341

1,995,000 01'

74°



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - EAST COAST

NEW YORK - NEW JERSEY

## HUDSON RIVER

### DAYS POINT TO GEORGE WASHINGTON BRIDGE

Mercator Projection  
Scale 1:10,000

North American Datum of 1983  
(World Geodetic System 1984)

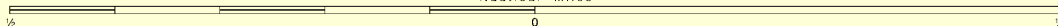
SOUNDINGS IN FEET  
AT MEAN LOWER LOW WATER

#### HORIZONTAL DATUM

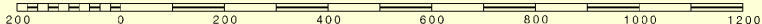
The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83) which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.365" northward and 1.505" eastward to agree with this chart.

SCALE 1:10,000

Nautical Miles



Yards



#### SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, [United States Coast Pilot](#).

Joins page 8

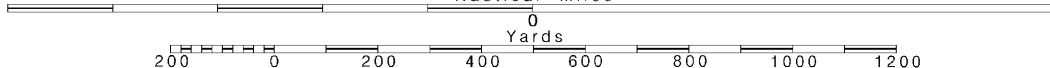
SOURCE

09 NOS Surveys full bottom coverage

Printed at reduced scale.

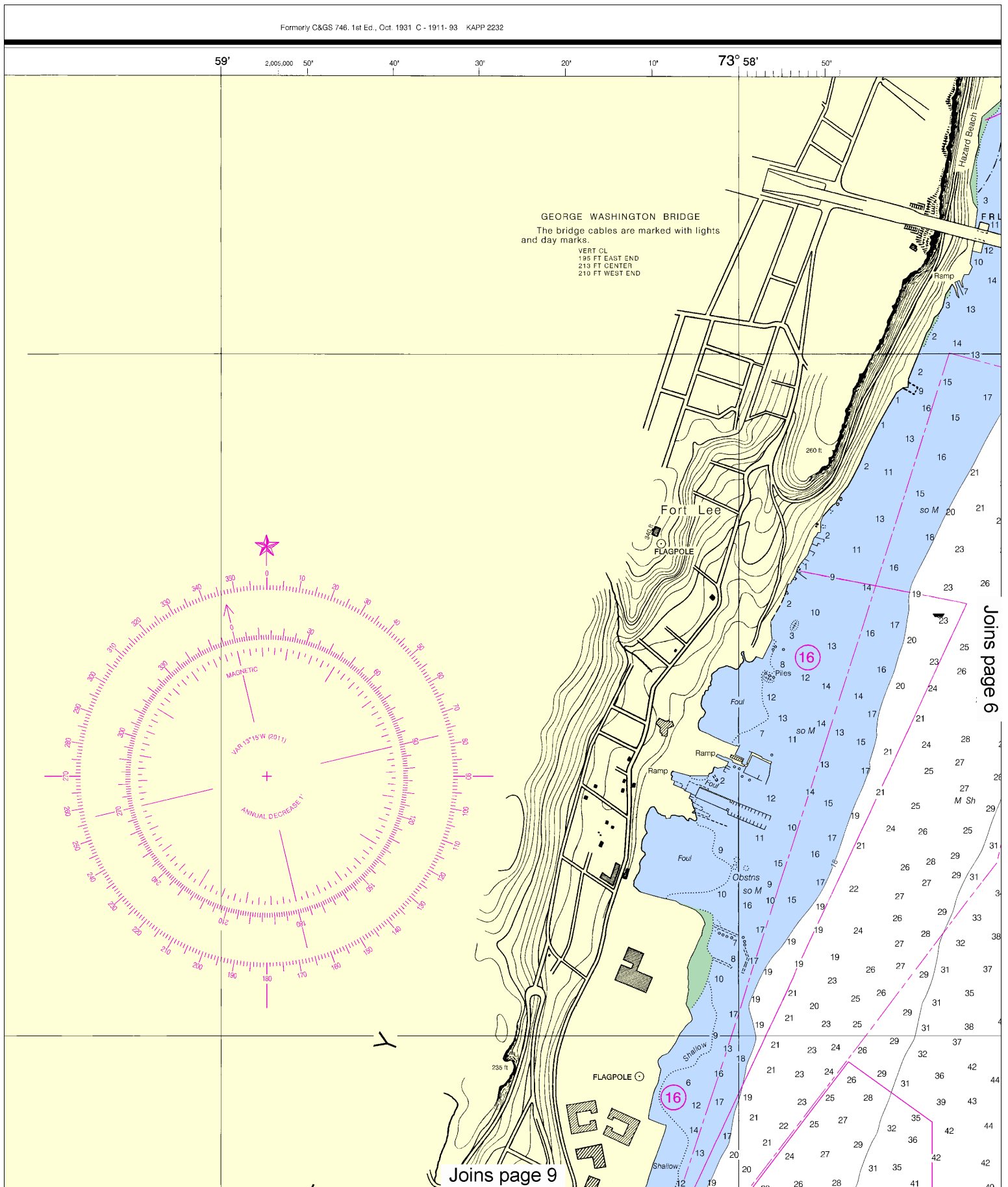
SCALE 1:10,000  
Nautical Miles

See Note on page 5.



4

Note: Chart grid lines are aligned with true north.



This BookletChart was reduced to 75% of the original chart scale.  
The new scale is 1:13333. Barscales have also been reduced and  
are accurate when used to measure distances in this BookletChart.

59'

2,005,000 50'

40'

30'

20'

10'

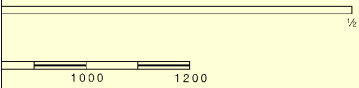
73° 5'

GEORGE WASHINGTON BRIDGE  
The bridge cables are marked with lights  
and day marks.

VERT CL  
195 FT EAST END  
213 FT CENTER  
210 FT WEST END

R  
TON BRIDGE

Joins page 5



Graphic  
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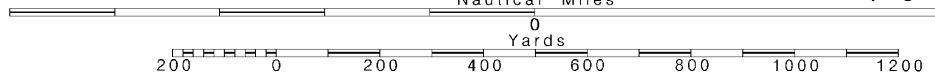
6

Note: Chart grid  
lines are aligned  
with true north.

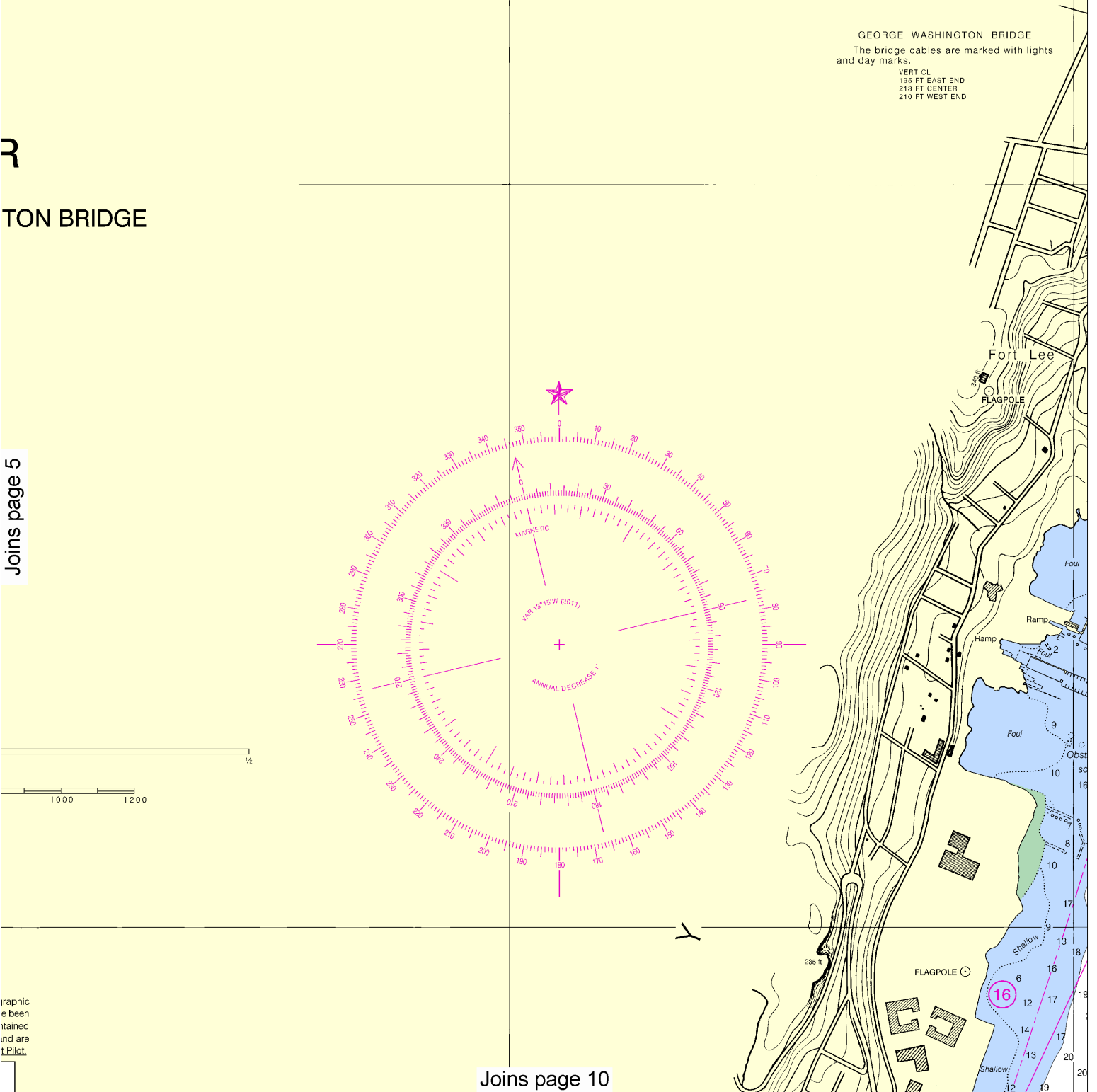
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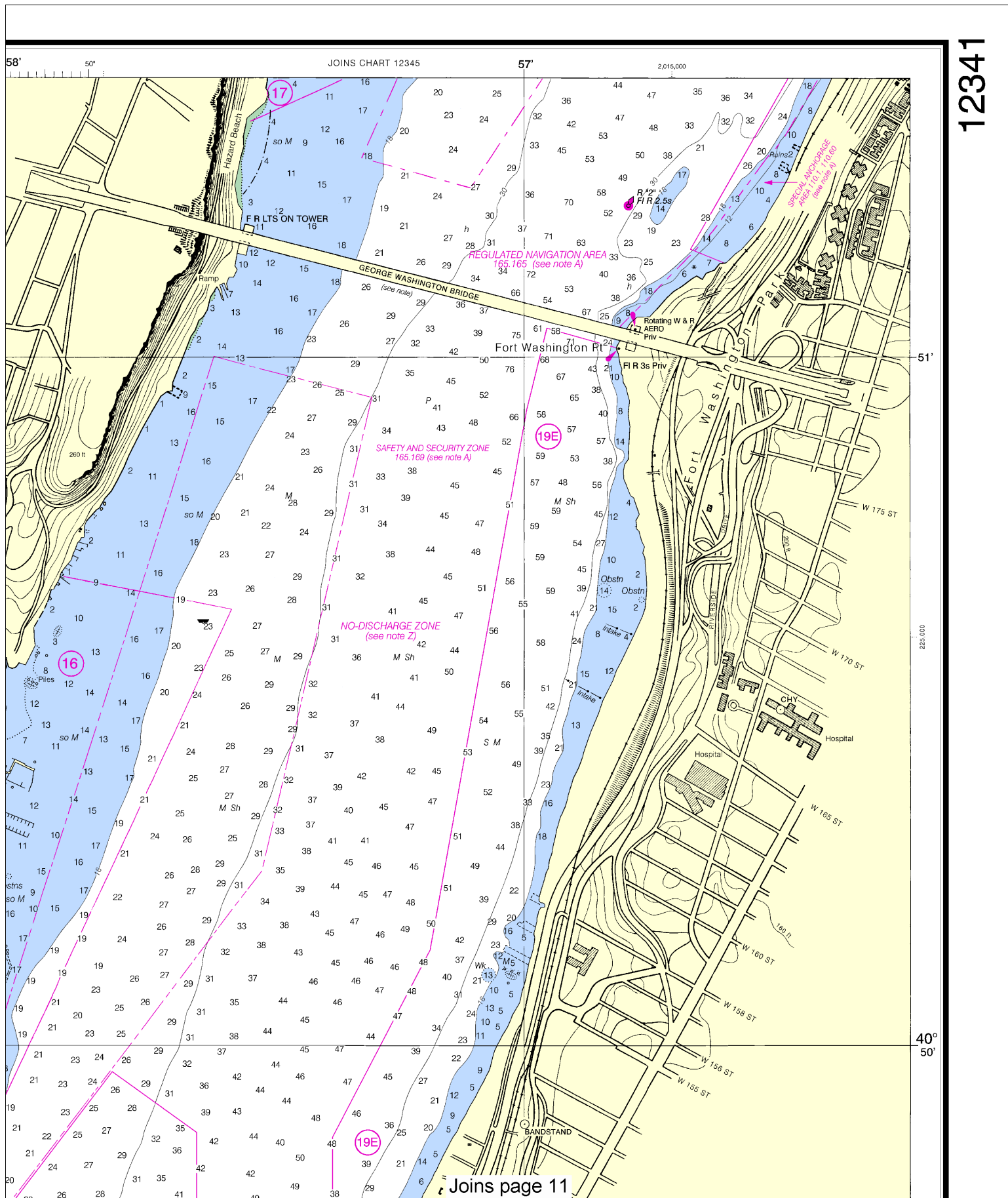
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See Note on page 5.



Joins page 10





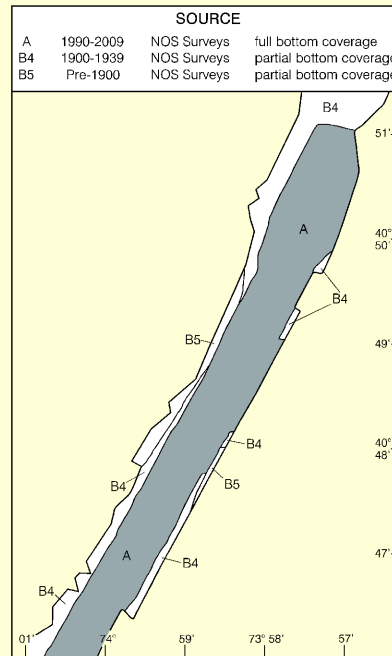
12341

This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 4812 11/27/2012,  
 NGA Weekly Notice to Mariners: 4912 12/8/2012,  
 Canadian Coast Guard Notice to Mariners: 1012 10/26/2012.

40°  
50'

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.



49°

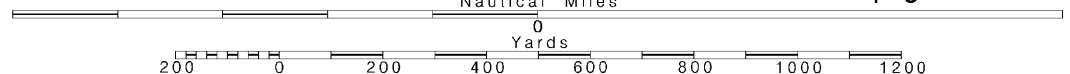
215,000

50°

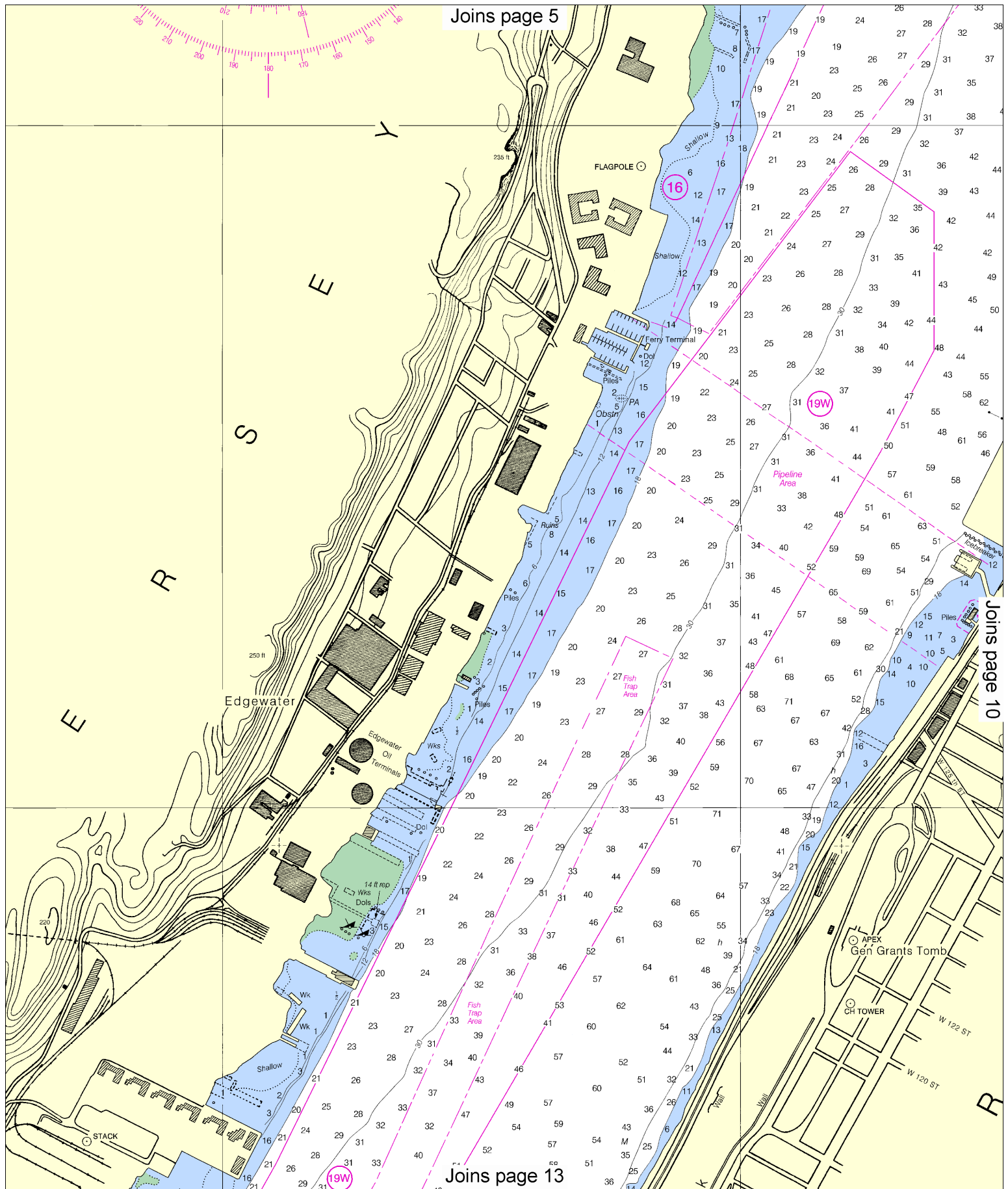
40°

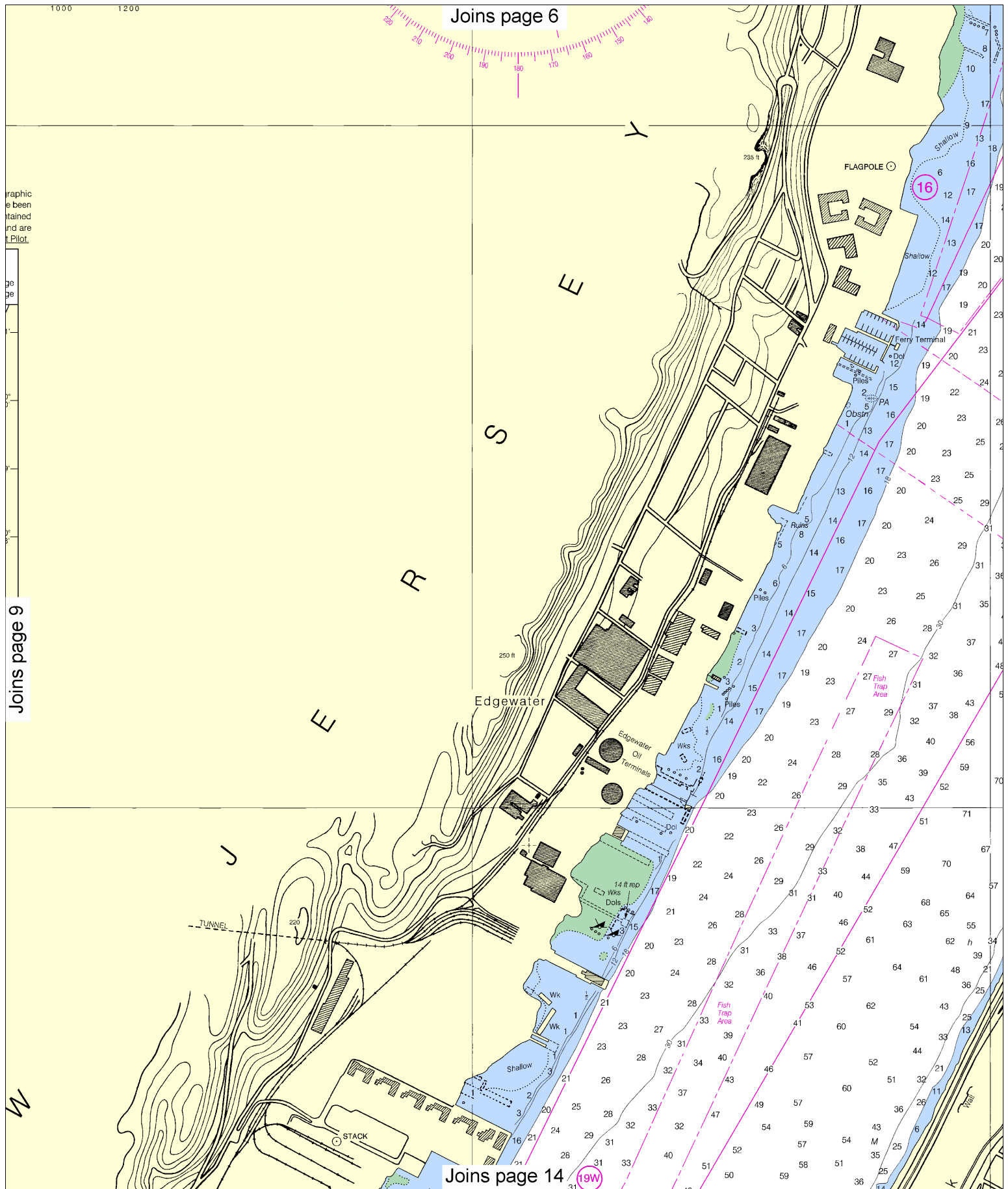
30°

Joins page 12









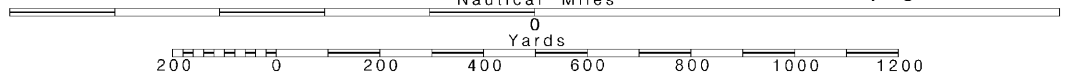
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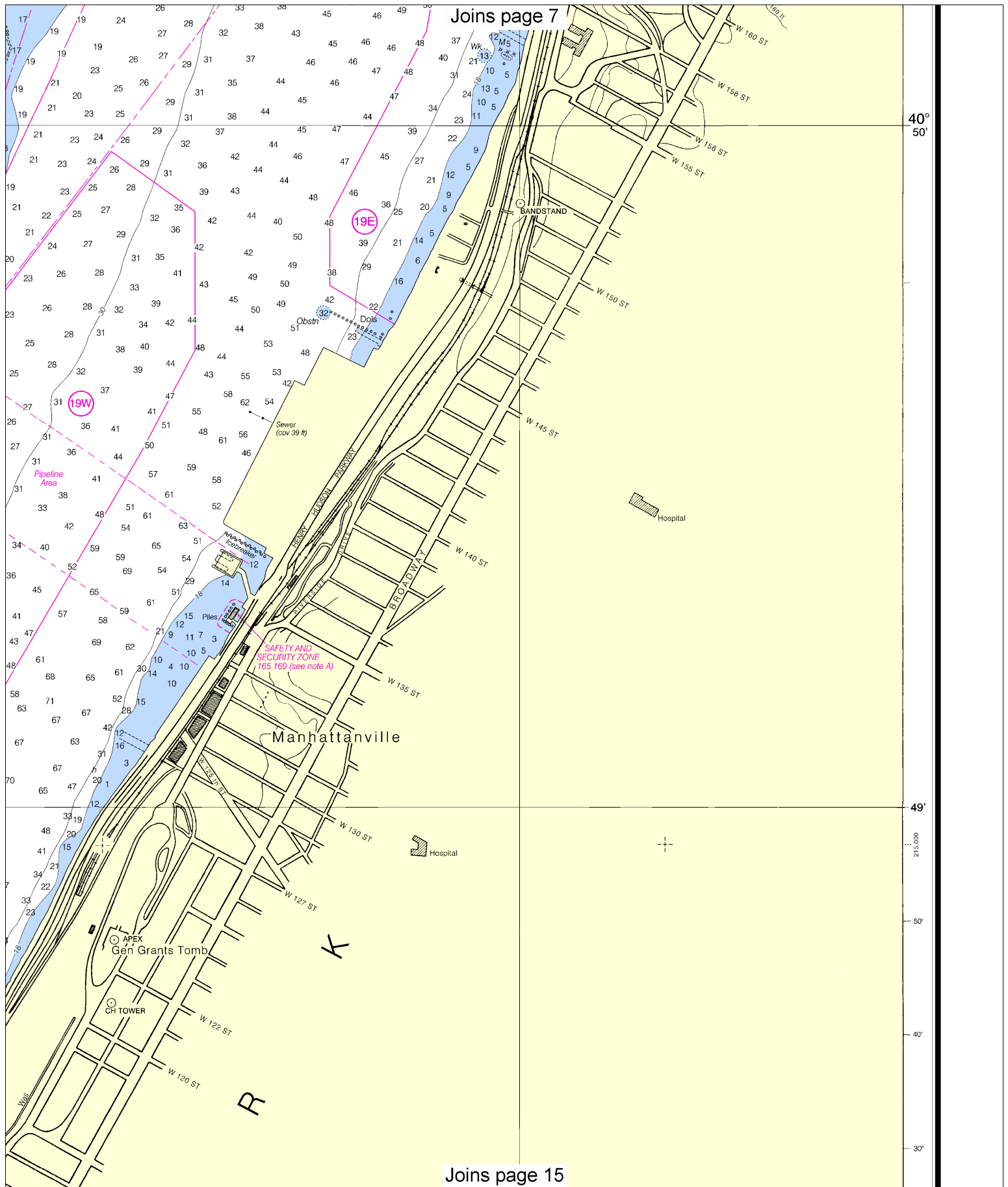
Note: Chart grid lines are aligned with true north.

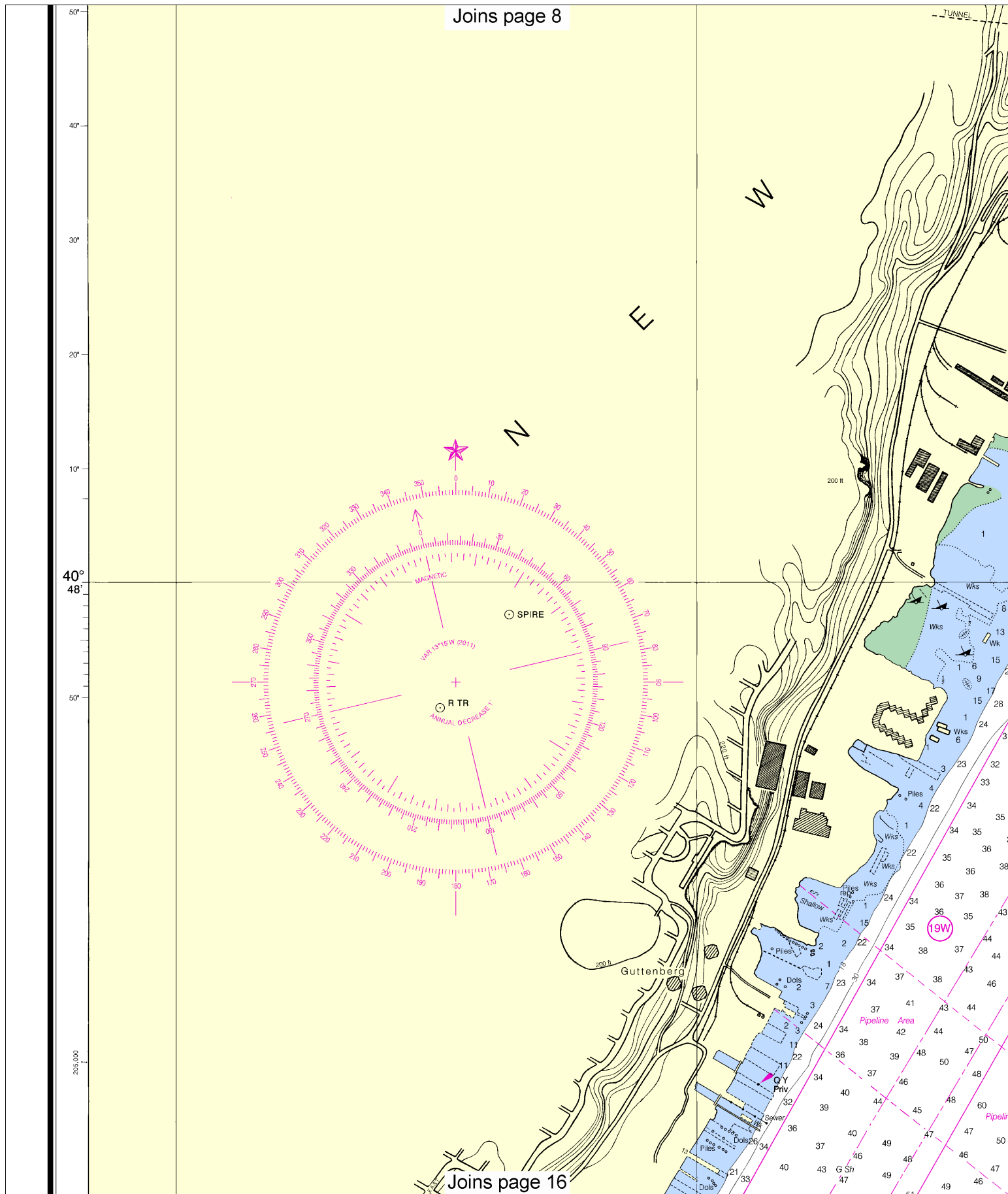
Printed at reduced scale.

SCALE 1:10,000

See Note on page 5.







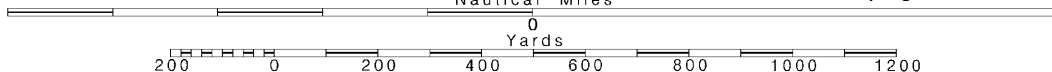
12

Note: Chart grid lines are aligned with true north.

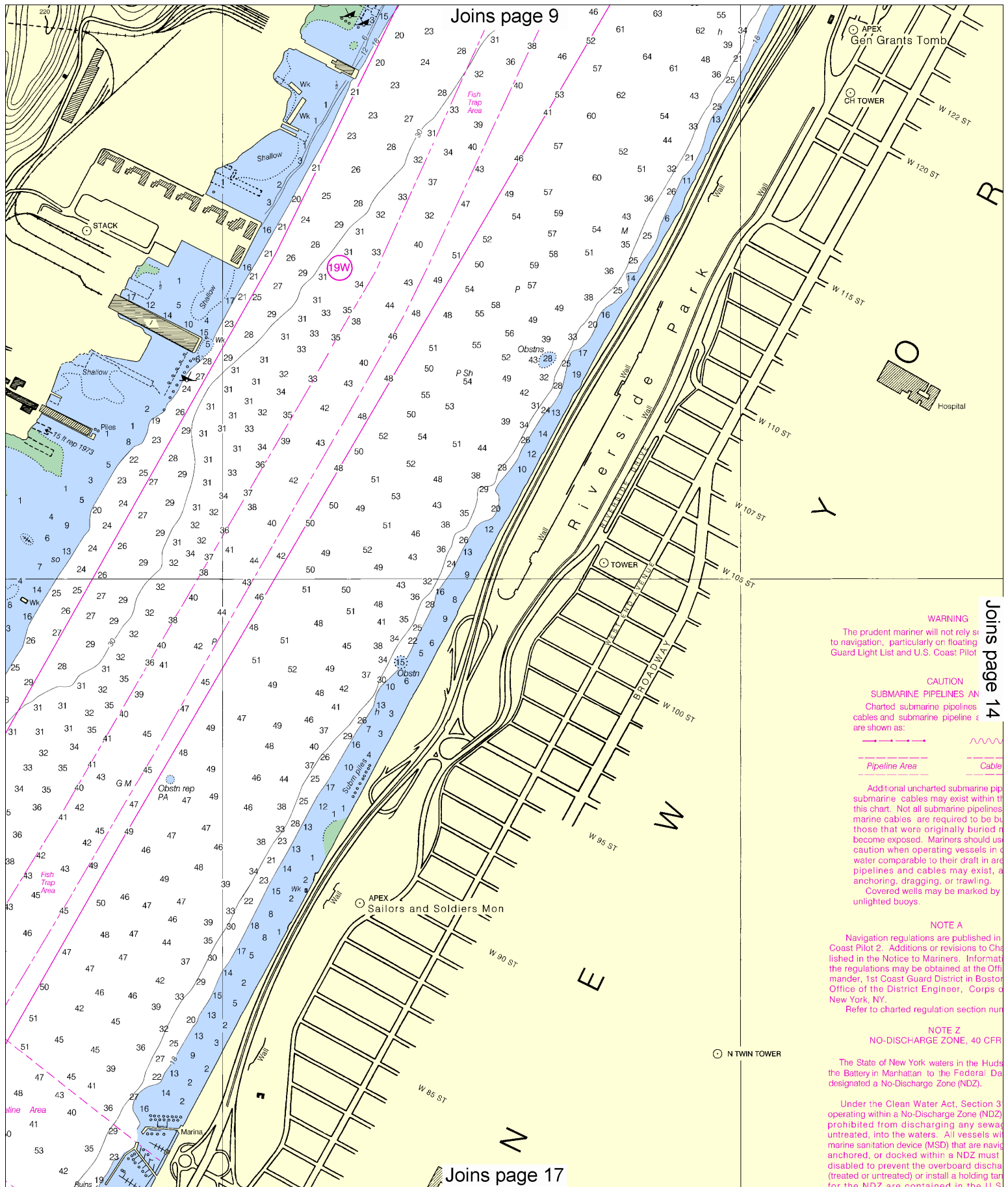
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SCALE 1:10,000

See Note on page 5.



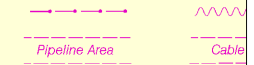




Joins page 14

**WARNING**  
The prudent mariner will not rely solely on this chart for navigation, particularly on floating Guard Light List and U.S. Coast Pilot.

**CAUTION**  
**SUBMARINE PIPELINES AND CABLES**  
Charted submarine pipelines, cables and submarine pipelines are shown as:



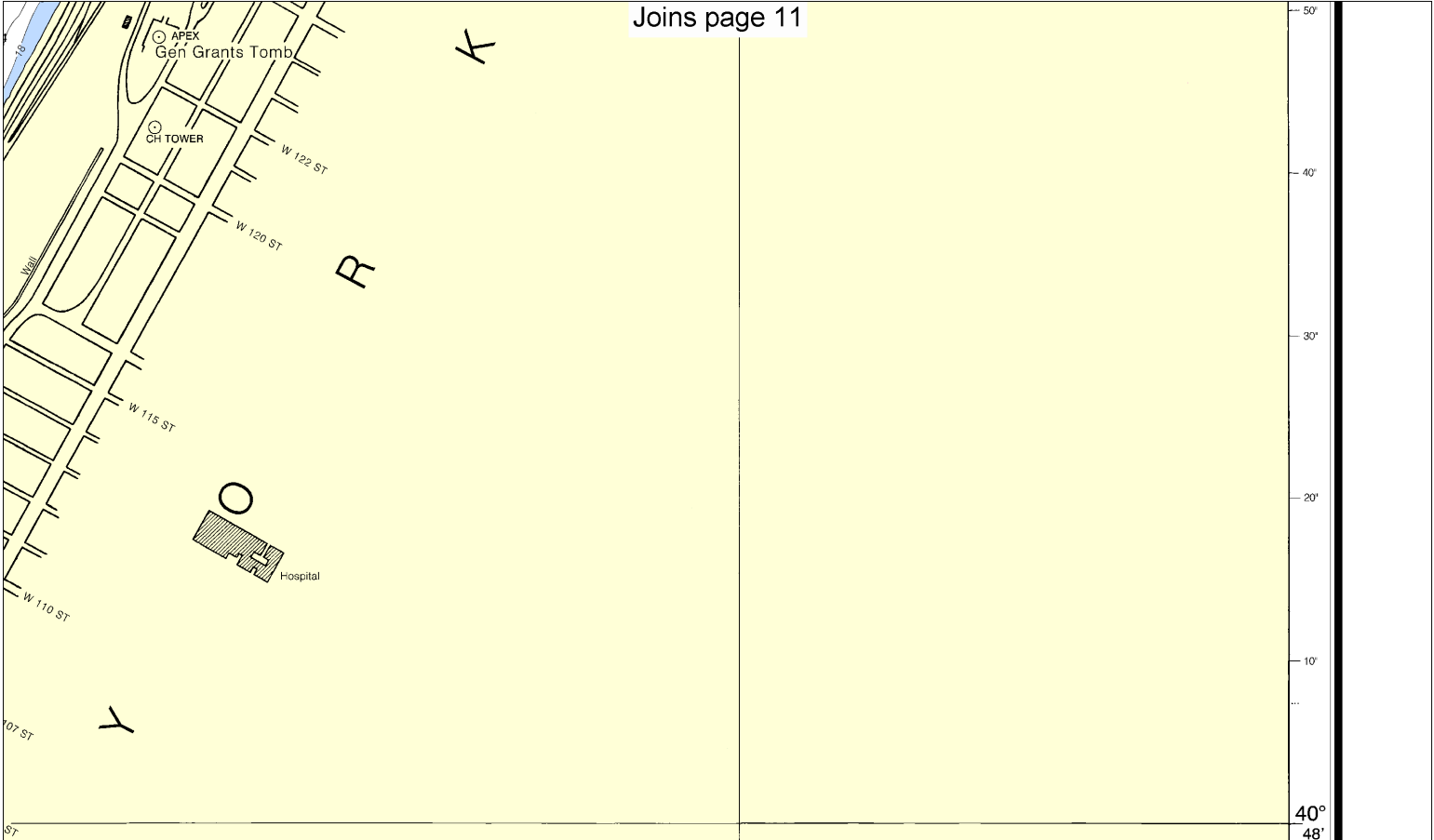
Additional uncharted submarine pipelines and cables may exist within the area shown on this chart. Not all submarine pipelines and cables are required to be buried. Those that were originally buried may become exposed. Mariners should use caution when operating vessels in the area. Pipelines and cables may exist, and may be damaged, by anchoring, dragging, or trawling. Covered wells may be marked by unlighted buoys.

**NOTE A**  
Navigation regulations are published in the Coast Pilot 2. Additions or revisions to the regulations may be obtained at the Office of the District Engineer, Corps of Engineers, New York, NY. Refer to charted regulation section number.

**NOTE Z**  
**NO-DISCHARGE ZONE, 40 CFR**  
The State of New York waters in the Hudson River from the Battery in Manhattan to the Federal Dam are designated a No-Discharge Zone (NDZ).

Under the Clean Water Act, Section 319, it is prohibited from discharging any sewage sludge, garbage, or other material into the waters. All vessels with marine sanitation device (MSD) that are navigating within a NDZ must be anchored, or docked within a NDZ must be disabled to prevent the overboard discharge of sewage sludge, garbage, or other material (treated or untreated) or install a holding tank for the NDZ are contained in the U.S. Coast Pilot 2.





50'  
40'  
30'  
20'  
10'  
...  
40°  
48'  
50'

**WARNING**  
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

**CAUTION**  
**SUBMARINE PIPELINES AND CABLES**  
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:  
--- Pipeline Area --- Cable Area ---

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.  
Covered wells may be marked by lighted or unlighted buoys.

**NOTE A**  
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 2. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in New York, NY.  
Refer to charted regulation section numbers.

**NOTE Z**  
**NO-DISCHARGE ZONE, 40 CFR 140**  
The State of New York waters in the Hudson River from the Battery in Manhattan to the Federal Dam in Troy are designated a No-Discharge Zone (NDZ).

Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot.

**ANCHORAGE AREAS**  
110.155 (see note A)

Limits and assigned numbers of anchorage areas are shown in magenta.

- 16 17 GENERAL ANCHORAGE
- 19E EAST GENERAL ANCHORAGE
- 19W WEST GENERAL ANCHORAGE

**TIDAL INFORMATION**

PLACE	Height referred to datum of soundings (MLLW)			
		Mean Higher High Water	Mean High Water	Mean Low Water
NAME (LAT/LONG)		feet	feet	feet
Weehawken, Union City, Hudson River (40°46'N/74°01'W)		4.9	4.6	0.2

Dashes (- - -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>. (Apr 2011)

**ABBREVIATIONS** (For complete list of Symbols and Abbreviations, see Chart No. 1.)  
Aids to Navigation (lights are white unless otherwise indicated):

- |                   |                          |                        |                    |
|-------------------|--------------------------|------------------------|--------------------|
| AERO aeronautical | G green                  | Mo morse code          | R TR radio tower   |
| Al alternating    | IQ interrupted quick     | N nun                  | Rot rotating       |
| B black           | Iso isophase             | OBSC obscured          | s seconds          |
| Bn beacon         | LT HO lighthouse         | Oc occulting           | SEC sector         |
| C can             | M nautical mile          | Or orange              | St M statute miles |
| DIA diaphone      | m minutes                | Q quick                | VO very quick      |
| F fixed           | MICRO TR microwave tower | R red                  | W white            |
| Fl flashing       | Mkr marker               | Ra Ref radar reflector | WhIS whistle       |
|                   |                          | R Bn radiobeacon       | Y yellow           |

**Bottom characteristics:**

- |               |          |           |
|---------------|----------|-----------|
| Blds boulders | Co coral | ov oyster |
| bk broken     |          | Rk rock   |
| Cy clay       |          | S sand    |

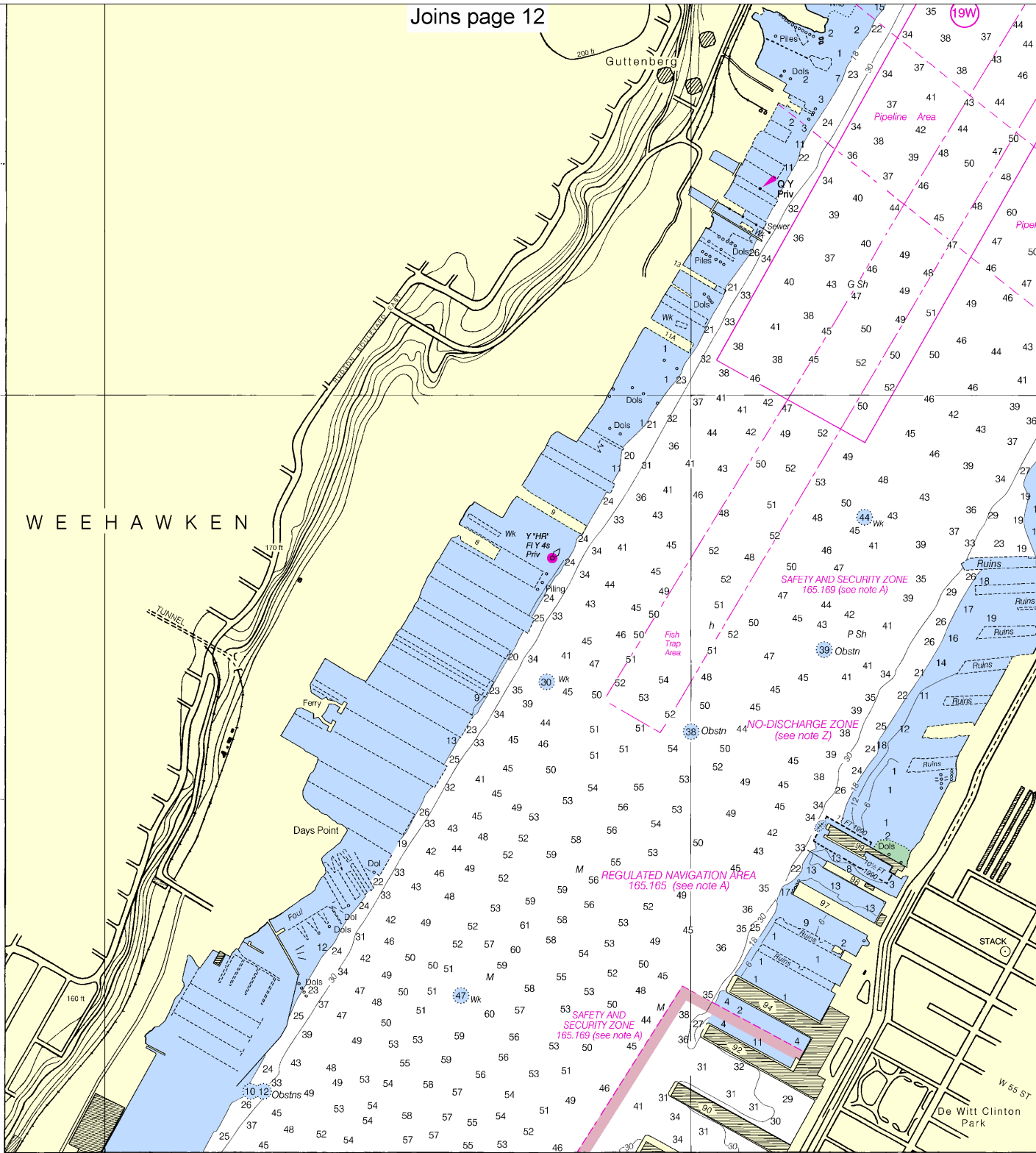
205,000

Joins page 12

2025,000

47'

WEEHAWKEN



28th Ed., May / 11 ■ Corrected through NM May 14/11  
Corrected through LNM May 3/11

12341

**CAUTION**

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

This nautical chart has been designed to promote safe navigation. Ocean Service encourages users to submit corrections, additions, improving this chart to the Chief, Marine Chart Division (N/CS2), Service, NOAA, Silver Spring, Maryland 20910-3282.

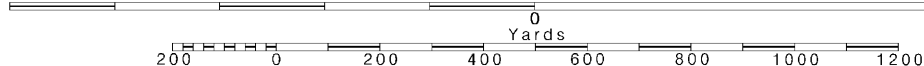
16

Note: Chart grid lines are aligned with true north.

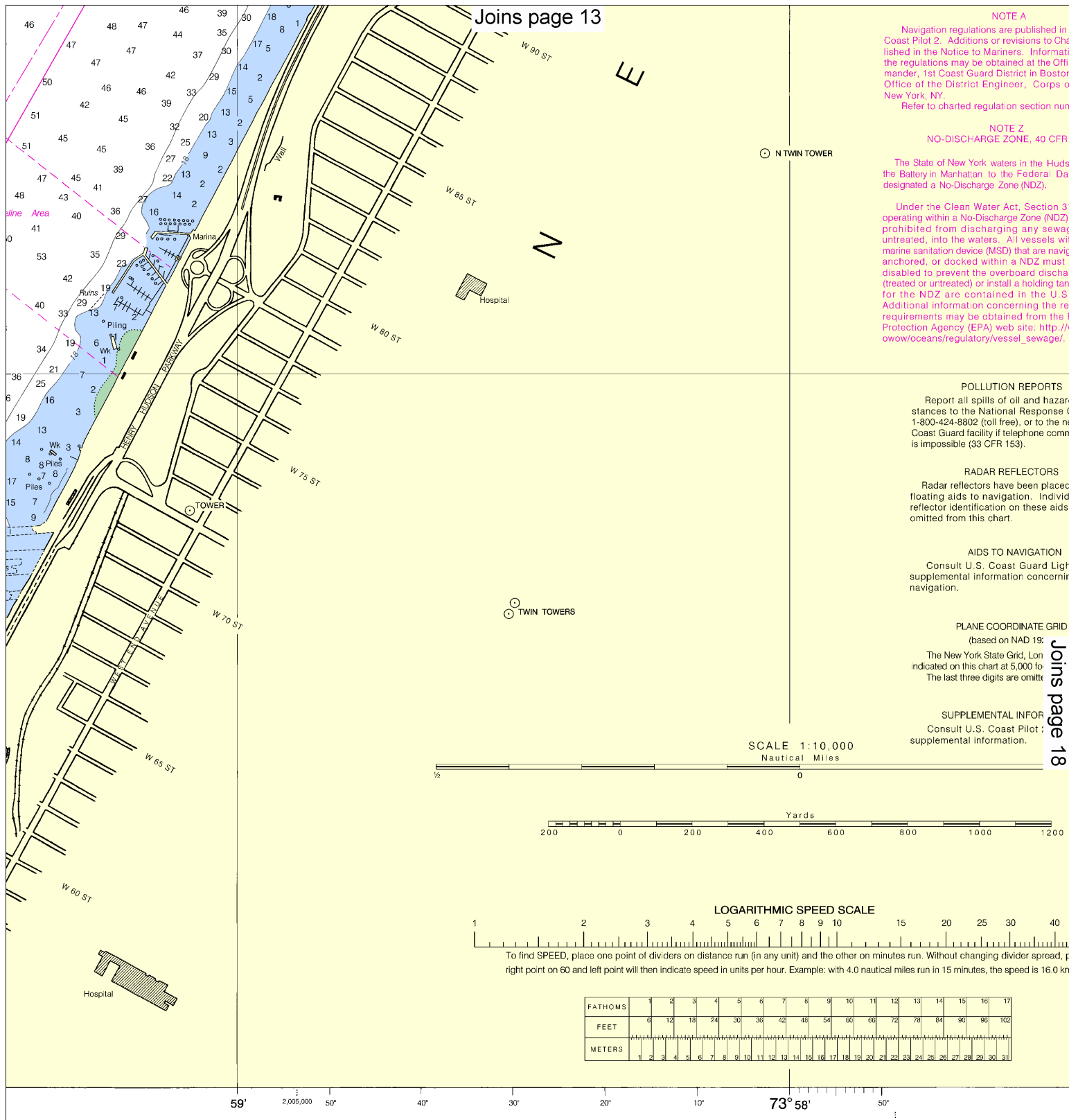
Printed at reduced scale.

SCALE 1:10,000  
Nautical Miles

See Note on page 5.







Joins page 18



## NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 2. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in New York, NY.

Refer to charted regulation section numbers.

NOTE Z  
NO-DISCHARGE ZONE, 40 CFR 140

The State of New York waters in the Hudson River from the Battery in Manhattan to the Federal Dam in Troy are designated a No-Discharge Zone (NDZ).

Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: [http://www.epa.gov/owow/oceans/regulatory/vessel\\_sewage/](http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/).

NAME	Joins page 15 JG)	Mean Higher High Water feet	Mean High Water feet	Mean Low Water feet
Weehawken, Union City, Hudson River	(40°46'N/74°01'W)	4.9	4.6	0.2

Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>. (Apr 2011)

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)  
Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	Is isophase	OBSC obscured	s seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphone	m minutes	Q quick	VO very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:

Blds boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Gr grass	M mud	S sand	sy sticky

Miscellaneous:

AUTH authorized	Obstr obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

21 Wreck, rock, obstruction, or shoal swept clear to the depth indicated.  
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

## POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

## RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

## AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

PLANE COORDINATE GRID  
(based on NAD 1927)

The New York State Grid, Long Island zone, is indicated on this chart at 5,000 foot intervals thus:  
The last three digits are omitted.

## SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 2 for important supplemental information.

## HEIGHTS

Heights in feet above Mean High Water.

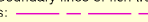
## AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers and U.S. Coast Guard.

## CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.  
During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

## FISH TRAP AREAS

Boundary lines of fish trap areas are shown thus:   
Submerged piling may exist in these areas.

## CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

Additional information can be obtained at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

## NOAA WEATHER RADIO BROADCASTS

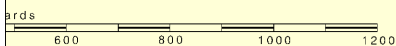
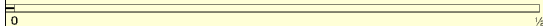
The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

New York, NY KWO-35 162.550 MHz

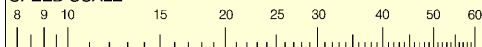
## PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 2-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at <http://ocsddata.nod.noaa.gov/ids/inquiry.aspx>, or OceanGrafix at 1-877-56CHART or <http://www.oceangrafix.com>.

1:10,000  
Stat Miles



## SPEED SCALE



Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.



IN FEET

Hudson River, Days Point to George Washington Bridge

SOUNDINGS IN FEET - SCALE 1:10,000

12341



## VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

**Channel 9** – Communications between boats and ship-to-coast.

**Channel 13** – Navigation purposes at bridges, locks, and harbors.

**Channel 16** – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

**Channels 68, 69, 71, 72 and 78A** – Recreational boat channels.

**Getting and Giving Help** — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

## Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

**HAVE ALL PERSONS PUT ON LIFE JACKETS!**



**NOAA Weather Radio All Hazards (NWR)** is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

## Quick References

Nautical chart related products and information	—	<a href="http://www.nauticalcharts.noaa.gov">http://www.nauticalcharts.noaa.gov</a>
Online chart viewer	—	<a href="http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html">http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html</a>
Report a chart discrepancy	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx">http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx</a>
Chart and chart related inquiries and comments	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs">http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs</a>
Chart updates (LNM and NM corrections)	—	<a href="http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html">http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html</a>
Coast Pilot online	—	<a href="http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm">http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm</a>
Tides and Currents	—	<a href="http://tidesandcurrents.noaa.gov">http://tidesandcurrents.noaa.gov</a>
Marine Forecasts	—	<a href="http://www.nws.noaa.gov/om/marine/home.htm">http://www.nws.noaa.gov/om/marine/home.htm</a>
National Data Buoy Center	—	<a href="http://www.ndbc.noaa.gov/">http://www.ndbc.noaa.gov/</a>
NowCoast web portal for coastal conditions	—	<a href="http://www.nowcoast.noaa.gov/">http://www.nowcoast.noaa.gov/</a>
National Weather Service	—	<a href="http://www.weather.gov/">http://www.weather.gov/</a>
National Hurricane Center	—	<a href="http://www.nhc.noaa.gov/">http://www.nhc.noaa.gov/</a>
Pacific Tsunami Warning Center	—	<a href="http://ptwc.weather.gov/">http://ptwc.weather.gov/</a>
Contact Us	—	<a href="http://www.nauticalcharts.noaa.gov/staff/contact.htm">http://www.nauticalcharts.noaa.gov/staff/contact.htm</a>



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NOAA's Office of Coast Survey



The Nation's Chartmaker